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Fact Sheet

Responding to a threat against a water system

Guidance for Office of Drinking Water staff and water systems to use when responding to suspected vandalism or terrorism

These guidelines appear in sequential order, but they steps and actions may be adjusted to meet the needs of each situation. Office of Drinking Water staff and utility personnel must work closely and collaboratively when determining specific actions appropriate to any incident.

Identify the threat

- Take any suspicious activity or evidence of vandalism or sabotage seriously.
- Notify your chain of command immediately.
- Designate a response coordinator.
- Document what you see and keep notes as you go.

Immediately notify officials

- Contact local law enforcement.
- Call your Department of Health (DOH) Office of Drinking Water Regional Office at the numbers listed on page 2. Use the after-hours number (877) 481-4901, if necessary.
- Alert other officials needed to protect public health, such as the local health jurisdiction.

Assess and respond to the threat

- Inspect facilities, but do not disturb any evidence.
- Consult with local law enforcement to determine whether the threat is credible. If there is strong evidence of sabotage or terrorist activity, call the FBI at (206) 622-0460.
- Pull together a response team with expertise in the areas needed to resolve the situation.
- Determine whether there is biological or chemical contamination, or damage that disrupts supply.
- Consult with DOH to determine immediate actions needed to protect public health. Examples include notifying customers, isolating affected areas, shutting down critical facilities, and issuing “boil water” or “do not drink” advisories.
- If you suspect contamination, sample for coliform, chlorine residual, and nitrate or nitrite. See page 2 for a list of water tests.
- Collect samples for future analysis and store them appropriately (for example, refrigerate).
- Conduct a full assessment of the situation, facilities and water quality.
- Develop a communication strategy and communicate with affected people regularly.
- If necessary, determine alternative sources of water supply for your customers.
- If appropriate, drain, clean, repair and disinfect the system. Get professional help if necessary.

Communicate with others

- Designate one public spokesperson that is able to control his or her emotions, remain calm, stay in control, and be firm but polite.
- Identify key messages and keep them current.
- Anticipate possible questions and prepare answers ahead of time.
- Never assume that what you say will be "off the record."
- Avoid conjecture and blame.
- Keep your communications succinct and to the point.

Consider additional water testing

Intentional contamination of drinking water falls into four general categories: 1) Inorganic, such as metals or cyanide, 2) Organic, such as pesticides or volatile compounds, 3) Radionuclide, and 4) Pathogenic microbiological organisms.

Even if you suspect contamination, it is unlikely the evidence will point to a particular contaminant. Instead, you may have to decide what tests to run for contaminants. Below are possible tests and the information they can give you about contaminants that may cause acute health effects.

Coliform Bacteria: This test indicates whether microbial contamination has been introduced into the system, especially from fecal origins.

Heterotrophic Plate Count (HPC): This test provides the number of bacteria that may have been introduced into the water. HPC counts greater than 500 signal the need to be wary. Very high levels (1,000 to 10,000 and greater) suggest a problem that needs immediate evaluation.

Chlorine Residual: In chlorinated systems, this test indicates whether materials introduced into the water have created a demand for chlorine. Lower-than-normal or no residual signals the need for further evaluation.

Chlorine Demand: For systems that do not routinely chlorinate, this test reveals unusual demands on the oxidizing capability of the added chlorine. Unusual demand indicates the presence of a contaminant that warrants further investigation.

Nitrate or Nitrite: This test is easy to perform and will tell you if either nitrate or nitrite is present at a level that could harm infants.

Total Organic Carbon (TOC): This test is relatively simple to perform. Normal expected levels of TOC for surface water are 0.2 to 4 mg/L, and for groundwater 0.01 to 2.0 mg/L. Higher levels may indicate the presence of organic materials that pose a health concern.

Total Halogenated Organic Carbon (TOX): This relatively simple test measures halogenated organic substances, including disinfection by-products such as trihalomethanes and haloacetic acids. High levels suggest contamination has occurred or that precursor organic materials have been added to enable formation of disinfection byproducts.

Cyanide: Although not simple to perform, do this test immediately if you suspect cyanide contamination. Cyanide is very toxic, causing rapid death upon ingestion.

Office of Drinking Water Regional Offices

Southwest Region (360) 664-0768
Northwest Region (253)395-6750
Eastern Region (509) 456-3115
After-hours (877) 481-4901